

IN THE CLAIMS:

Please cancel Claims 1-3 and 7-9, and amend Claim 4 as follows:

1. - 3. (Cancelled)

4. (Currently Amended) An image pickup apparatus according to Claim 1, comprising:

a plurality of pixels each including a photoelectric converting element;

a plurality of capacitors which receive signals from said plurality of pixels at first terminals;

a plurality of clamping switches for setting a second terminal of each of said plurality of capacitors to a predetermined electric potential;

a plurality of source follower circuits;

a plurality of first storing units for storing signals from said second terminals of said plurality of capacitors via said plurality of source follower circuits;

a plurality of second storing units for storing the signals from said second terminals of said plurality of capacitors via said plurality of source follower circuits;

a first common output line to which the signals from said plurality of first storing units are sequentially output;

a second common output line to which the signals from said plurality of second storing units are sequentially output; and
a difference circuit for operating a difference between the signal from said first common output line and the signal from said second common output line.

wherein said first storing unit includes a first transfer gate and a first holding capacitor for holding the transferred signal, and said second storing unit includes a second transfer gate and a second holding capacitor for holding the transferred signal, and

wherein said image pickup apparatus further comprises a driving circuit arranged so that after said clamping switch is turned off at a first timing, said clamping switch is continuously held in an OFF state and said first transfer gate is closed at a second timing, thereby holding a first signal which is obtained from said second terminal of said capacitor into said first holding capacitor, and after said clamping switch is turned off at the first timing, said clamping switch is continuously held in the OFF state and said second transfer gate is closed at a third timing, thereby holding a second signal which is obtained from said second terminal of said capacitor into said second holding capacitor.

5. (Previously Presented) An apparatus according to Claim 4, wherein said driving circuit effects driving so that the second terminal of said capacitor is set into said predetermined electric potential by turning on said clamping switch, the signal which is obtained from said first amplifying element by resetting the input portion of said first amplifying element is transferred to the first terminal of said capacitor, said clamping

switch is turned off and thereafter said first signal which is obtained from the second terminal of said capacitor is held in said first storing unit, after that, a signal, which is output from said first amplifying element, including the photoelectric conversion signal from said photoelectric converting element is transferred to the first terminal of said capacitor, and said second signal which is obtained from the second terminal of said capacitor is held in said second storing unit.

6. (Previously Presented) An apparatus according to Claim 4, wherein said driving circuit effects driving so that the second terminal of said capacitor is set into said predetermined electric potential by turning on said clamping switch, then a signal, which is output from said second amplifying element, including the photoelectric conversion signal from said photoelectric converting element is transferred to the second terminal of said capacitor, said clamping switch is turned off and thereafter said first signal which is obtained from the second terminal of said capacitor is held in said first storing unit, the signal which is obtained from said second amplifying element by resetting the input portion of said second amplifying element is transferred to the first terminal of said capacitor, and said second signal which is obtained from the second terminal of said capacitor is held in said second storing unit.

7. - 9. (Cancelled)